DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022796 Address: 333 Burma Road **Date Inspected:** 19-Apr-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

CWI Name: Mr. She Lei **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG** Segment

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 008865

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13CW. The weld designations reviewed are as follows:

- 1. SEG3015F-215, 222, 227, 234, 239, 244, 210
- 2. SEG3015H-203, 208, 210, 212, 214, 216, 218

Description of Incident: During the Quality Assurance Ultrasonic Testing (UT) verification of weld located on OBG Segment 13CW, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) Class "A" indication measuring approximately 25mm in length.
- The Indication rating is +8dB and length approximately 25mm.
- The nominal thickness of the plate is 14mm and depth of the indication approximately 5mm.
- The indication is located on the weld joint identified as SEG3015F-210.
- The "Y" location for this indication is approximately 160mm from top of this weld.
- The weld is a Complete Joint Penetration (CJP) 'T" weld joint joining Floor Beam to Vertical Plate at panel point

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123.5.

- The indication is clearly marked by QA on/near the weld.
- This weld is designated as non Seismic Performance Critical Member (non SPCM).
- OBG Segment 13CW is located in Trail Assembly North Side.
- The Notice of Witness Inspection Number (NWIT) is 008865.
- The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel.
- As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld. See the attached picture.

OBG Trail Assembly

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3015K-224 located on Side Plate RS Stiffener to Floor Beam at panel point 123 of OBG Segment 13CW. ZPMC Welder is identified as 045196. ZPMC Quality Control (QC) is identified as Mr. She Lei. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-4G-(4F)-FCM-Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-2933.

SMAW) welding of weld joint SEG3015F-210 located on Floor Beam to Side Plate at panel point 123.5 of OBG Segment 13CW. ZPMC Welder is identified as 045196. ZPMC Quality Control (QC) is identified as Mr. She Lei. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G-(3F)-FCM-Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-2933.

SMAW welding of weld joint DP316-001-045, 046, 047, 048, 049 050 and 051 located on Deck Panel RS Stiffener of OBG Segment 13AW. ZPMC Welder is identified as 066765. ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-4114-FCM-1.

SMAW welding of weld joint SEG3013A-008 located on Bottom Plate to Side Plate of OBG Segment 13AW. ZPMC Welder is identified as 067609. ZPMC Quality Control (QC) is identified as Mr. Zhou Peng. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-B-U2-FCM-1.

This QA inspector observed ZPMC personnel performed Ultrasonic Testing (UT) on Side Plate to Corner Assembly at panel point 120.5 to 121 of OBG Segment 13BW. See the attached picture.

This QA inspector observed ZPMC personnel performed Magnetic particle Testing (MT) on Bottom Plate and Side Plate RS stiffener to Floor Beam at panel point 123.5 cross beam side of OBG Segment 13CW.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar, Vibin	Quality Assurance Inspector
Reviewed By:	Patel, Hiranch	QA Reviewer